British Hang Gliding and Paragliding Association

REPORT

Investigation of a paragliding incident, which occurred at Jhatingri Pass, Pradesh, India on 14th October 2016
In which one pilot was involved and suffered fatal injuries.

Introduction

On October15th 2016 the British Hang Gliding and Paragliding Association (BHPA) received reports of an incident involving a member flying in the Pradesh region of India, which resulted in fatal injuries to the pilot.
The BHPA tasked Mr Ian Currer, BHPA Technical Officer, to investigate the incident and submit a report to the Flying and Safety Committee (FSC) of the BHPA for ratification.

BHPA investigation serial number: GBR-2016-4096

Summary

On 14th October at approximately 14.00 Pilot A, who holds a BHPA "Pilot" rating launched a BGD Tala Paraglider from Jhatangri (also known as 360) near Pradesh in northern India. After a few minutes of flight, his glider suffered a large asymmetric collapse. Pilot A was unable to regain control of the glider and attempted to deploy his emergency parachute, but this did not deploy before the pilot impacted the ground heavily, sustaining a fatal head injury.

This document is confidential until ratified.

Date ratified by the BHPA Flying and Safety Committee: 10.12.2017

THE STRUCTURE OF THE REPORT.

The structure of this report conforms to that recommended in the BHPA Technical Manual and is intended to follow the principles pertaining to AAIB reports. It is divided into the following sections.

Section 1: Factual information

Section 2: Analysis

Section 3: Conclusions

Section 4: Safety recommendations

SECTION 1 - FACTUAL INFORMATION.

1.1 History of the flight.

On October 14th 2016, a guided group of British pilots were flying at Jhatingri pass, a site known locally as 360.
Pilots A & C were part of this group led by Pilot B; the Chief Flying Instructor of a BHPA school.
Pilot A (a trainee instructor) was assisting with the guiding. The flying conditions were described by other pilots who were flying that day as good, with weak ridge lift and thermals of about 3m/sec.

Pilot A had been airborne a few minutes, he was positioned 20m above and slightly behind the take off point of Jhatingri ridge when his glider suffered a large asymmetric deflation.
Pilot B states: *"He suffered a 75% deflation, autorotated 180 degrees right, then the deflation recovered. However the glider did not regain normal flight. It spun left 180 degrees, then he (pilot A) held it in a deep stall."*

Pilot A deployed his emergency parachute at an estimated height of less than 25m (the ground behind launch is at a slightly lower level) but there was insufficient height for it to open fully and arrest his descent and he impacted the hilltop. His head struck a rocky outcrop and he sustained a serious injury and lost consciousness.

He did not regain consciousness and died of his injuries later that day.

1.2 Injuries to persons

	Crew	Passengers	Others
Injuries			
Fatal	1	0	0
Serious	0	0	0
Minor/ None	0	0	0

1.3 Damage to aircraft & other equipment

Pilot A's helmet had sustained serious impact damage to the right front edge.
The glider and instruments were undamaged.
The harness and emergency parachute were not available to the investigation for inspection, but were reported by Pilot B to be undamaged.

1.4 Personnel information

Pilot A was a 48-year-old male; he was a current member of the BHPA and had started flying in 1996. He held the BHPA "Pilot" rating. He had held this rating since 2015. He was also registered as a Trainee Instructor.

No logbook has been supplied to the investigation, but his CFI (Pilot B) estimates he had several hundred hours airtime and was in current practice.
Pilot B reports he had recently discussed Pilot A's experience on this glider and that that Pilot A had reported that he had accumulated 150hrs airtime on this glider.

1.5 Aircraft and Equipment information

The Paraglider is a Tala M/L (90-112kg) Manufactured by Bruce Goldsmith Design. Pilot A had an All Up Weight of 100kg.
This glider is certified at EN C - *suitable for experienced pilots who fly regularly and have some skill at recovering from unstable situations*

Pilot A 's emergency parachute was an Independence Annular 22. It is approximately 9 years old and had been repacked within the 12 month period prior to the incident. It is certified to EN12491 and LTF 35/03 with a maximum AUW of 130kg.
Pilot A's harness was a Kortel Kannibal Race fitted with a foam impact pad.
Pilot A's helmet was a Smith Allure open face snowboard type certified to EN1077B

1.6 Meteorological information

Wind speed is reported by Pilot B at 5-10kph with weak to moderate convection. Thermal strength reported as 3m/sec. Visibility was good.

1.7 Communications

Pilot A was carrying a radio. He made no transmissions, but Pilot B who witnessed the incident, did prompt him by radio to deploy his emergency parachute.

1.8 Flying site

Jhatingri pass, Pradesh, India. Jhatingri is a south facing rock-terraced ridge, approximately 1000m from top to bottom with a clear top comprising grassy areas and some rocky outcrops. It is a popular paragliding site and is used regularly by pilots of a wide range of abilities.

Photo 1. Jhatingri (360) General view on the day of the incident.

1.9 Flight recorders

Pilot A was flying with a Flymaster GPS SD variometer-altimeter, which recorded a tracklog of his flight. Data obtained from this is considered in the analysis section.

1.10 Medical and pathological information

Pilot A suffered a serious injury to his face and right forehead. Cause of death is given by the post mortem report as cerebral depression caused by blunt force impact. He had no other injuries.

1.11 Organisational and management information.

Pilot A was a member of an organised trip with several other pilots from his club. Pilot B, a Senior Instructor and CFI was present on site at the time of the accident. The recovery was immediate and a local paramedic was on site, but as the location is fairly remote, the time taken from the accident to the pilot receiving hospital treatment was approximately 2 hours.

SECTION 2 – ANALYSIS

2.1 The investigation considered the experience and currency of the pilot involved in the incident. Pilot A was experienced, and current, he had been flying every day of the preceding week. The investigation considered that pilot currency was not a factor in this incident.

2.2 The investigation considered the weather conditions. Conditions were reported to be generally good; no significant thermal turbulence was reported by other pilots who flew that day, although the large collapse indicates that Pilot A did encounter significant and unexpected turbulence.

The investigation considered that turbulence was the initial cause of the collapse and subsequent loss of control of the aircraft. If the glider continued to be affected by the turbulent air that initiated the collapse, or by turbulent air in the lee of the hill, this may have been a factor hindering recovery of control.

2.3 The investigation considered state of trim of the BDG Tala paraglider. During a subsequent inspection carried out by Aerofix, (an independent inspection and servicing company), it was found that the "C" lines, especially C 3 (the outer C's) were significantly shorter than the manufacturers specification. In addition the investigation noted that witnesses stated that the control lines were also significantly longer than specified. These were photographed and measured by Pilots B and C after the incident and reported to be 140mm and 105mm longer than specified. After the incident Pilot B had re-set the control lines, so the investigation was unable to re-check these figures. There is no information on when, if ever the glider had last been checked.

Photo B. The control lines of Glider A photographed after the accident.
The knots (made by the pilot) reportedly indicate the correct length specified by the manufacturer.

Pilot B states that he believes that Pilot A had his control lines wrapped around his hands at the time of the incident and did often fly with this configuration.

Pilot B and pilot C both note that it appeared that the glider could not recover properly as it was in the state known as "deep stall". This is usually only possible when the pilot is over-controlling with too much input, or the glider is incorrectly trimmed.
The investigation considers that as pilot A was probably flying with wrapped control lines, and the reduced C line measurement places the glider out of trim, that these factors may

possibly have affected his ability to regain control, shortened C lines have the effect of increasing the gliders trimmed angle of attack and may have been a contributory factor to the gliders' failure to recover from its deep-stalled state.

2.4 The investigation considered the role of the emergency parachute in the incident. Witness reports note that the pilot was very low when the emergency parachute was deployed.
Pilot C notes that there was insufficient time or altitude for it to fully open and provide effective deceleration. (An emergency parachute typically requires at least 50m in order to fully deploy). Pilot B inspected the emergency parachute after the incident, and reports that it appeared to be in good working order. The investigation considers that the emergency parachute or its operation were not factors in this incident.

2.5 The investigation considered the flight log data obtained from Pilot A's Variometer/ GPS unit. This indicates that in the 3 seconds prior to impact his descent rate varied from 5.5m/sec to 7.5m/sec
For a healthy person landing feet first this is a survivable impact. The investigation considers that in this case the pilot was very unfortunate to hit his head on a rocky outcrop.

2.7. The investigation considered that Pilot A's helmet was of the open face type and certified to the CE 1077 B standard, which offers the same blunt force protection, but a significantly lower penetration resistance and a slightly smaller area of lateral protection than models certified to the CE966 or CE1077 A standard, which are recommended by the BHPA and other bodies for air sports.

The investigation is not qualified to comment on the medical diagnosis concerning the mechanism of injury, but notes that the helmet was badly damaged and that the level of head protection was critical in this incident.

SECTION 3 – CONCLUSIONS

3.1/ The investigation concluded that the incident occurred as a result of the pilot losing control of his paraglider in turbulent air while close to the ground.

3.2/ The Investigation concluded that the standard of helmet used by the pilot may have been a factor in the severity of the head injury sustained by the pilot.

SECTION 4 - SAFETY RECOMMENDATIONS

4.1 The investigation recommends that through the medium of the national association's magazine, pilots be reminded of the hazards of out of trim gliders, or modifying the control line lengths of paragliders, and that altering any dimension places the glider outside its tested and certified configuration.

4.2 The investigation recommends that through the medium of the national magazine, pilots are reminded of the potential hazards of using head protection that does not conform to the approved standards recommended by the association.